

# TECHNICAL MEMORANDUM

## Utah Coal Regulatory Program

August 11, 2006

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TO: Internal File

THRU: Wayne Hedberg, Permit Supervisor, Task Manager *DWA*

FROM: *SH* Peter H. Hess, Environmental Scientist/Engineering, Team Lead

RE: Subsidence Crack Repair – Proposed Scope of Work / Section 24, T13S, R12E, Canyon Fuel Company, LLC., Dugout Canyon Mine, C/007/039, Task ID #2594

### SUMMARY:

The Permittee notified the Division on June 27, 2006 that a subsidence crack had been discovered near degasification well G-7, which is associated with longwall panel GIL-3 in the Dugout Canyon Mine workings. GIL-3 underwent secondary extraction during the fall-winter-spring period of 2005-2006.

The crack that was reported was inspected by DOGM personnel on June 28, 2006. At that time, the Division requested that a plan be submitted to repair the crack. The first opening was observed to be approximately 150 to 200 feet in length, varying in width from a few inches to 1.5 feet. A second crack was observed which crossed the G-7 drill pad during the inspection.

The Utah Division of Wildlife Resources was notified of these cracks on or about July 1, 2006.

UDWR inspected the subsidence cracks on July 11, 2006, and determined that only one was a concern to wildlife in the area. This crack had a twenty-foot length, and is located on the SE corner of the G-7 pad (this is the crack which the Permittee reported to the DOGM on 6/27).

The Permittee submitted a Scope of Work plan on July 28, 2006, which consists of a three-page document. Same outlines how the crack which was reported on 6/27 will be repaired with a minimum amount of impact to the surrounding area.

### TECHNICAL ANALYSIS:

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TECHNICAL MEMO

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## OPERATION PLAN

### SUBSIDENCE CONTROL PLAN

Regulatory Reference: 30 CFR 784.20, 817.121, 817.122; R645-301-521, -301-525, -301-724.

#### Analysis:

##### **Subsidence Control Plan**

Chapter 5, section **525.200 Subsidence Control**, page 5-31, **Correction of Material Damage** of the approved MRP discusses the commitment made by the Permittee to repair **material damage** to surface lands should any occur as a result of mining related subsidence in the permit area.

The R645 Coal Mining Rules contain a definition of *material damage*, as it relates to subsidence causing by mining. "Material Damage" for the purposes of R645-301-525, means:

- a) Any functional impairment of surface lands, features, structures or facilities.
- b) Any physical change that has a **significant adverse impact** on the affected lands capability to support any current or reasonably foreseeable uses or causes significant loss in production or income, or
- c) Any significant change in the condition, appearance or utility of any structure or facility from its pre-subsidence condition.

Based upon the above, the Division has determined that the cracks reported by the Permittee do not or will not cause a significant adverse impact to the surface lands on which they have occurred. There will be no significant loss of wildlife resources or grazing potential in the area. Therefore, material damage has not occurred to the lands adjacent to degasification well G-7.

The Permittee is repairing the cracks as a measure of good faith toward the relationship with the surface landowner, the heirs of the Milton and Ardith Thayn trust.

It will not be necessary to construct any new roads to make the crack repairs.

A rubber-tired backhoe will be used to place rock and soil in major voids; hand tools will be used to backfill cracks where width is not considered hazardous.

## TECHNICAL MEMO

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Compaction of the placed fill will occur where possible. Loss of soil resources will be minimized where possible. It must be realized that some soil has fallen into cracks due to gravity in the area of the tensile opening.

Seeding of the filled areas will occur during the fall of 2006.

It must be noted that the submitted plan will also be used to fill other cracks which have been identified in the vicinity of degasification well G-7 and over the head gate entries of the GIL-3 panel near the extraction face. None of these cracks have been determined to be hazardous to wildlife or humans.

The Permittee intends to initiate the repair work following Division approval of the Scope of Work application. It is anticipated that approximately one month will be needed to complete the repairs.

### **Performance Standards For Subsidence Control**

The Permittee has implemented retreat longwall mining at the Dugout Canyon Mine, which is mining technology that provides for planned subsidence in a predictable and controlled manner.

The Division has determined that the subsidence cracks reported by the Permittee do not and will not constitute material damage to the surface lands associated with the current coal lease. The Permittee is repairing the reported cracks for the purpose of maintaining the established relationship between the Company and the Permittee, as well as the State of Utah, DOGM and DWR.

There are no protected public buildings or impoundments within the surface area of the current mining lease.

### **Notification**

The Permittee continues to notify surface landowners within six months of advance mining into or beneath their property boundaries, meeting the requirements of R645-301-525.700.

As required by the approved MRP, (Chapter 5, section **525.200 Subsidence Control, Correction of Material Damage**, page 5-31) the Permittee has notified the Division of the subsidence cracks associated with degasification well G-7, i.e., "other disturbance known to be caused by subsidence that will have an adverse affect on the environment". The crack identified on the SE corner of the degasification well G-7 pad has been determined to be "an area of

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**TECHNICAL MEMO**

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concern” to wildlife. This does not mean that the crack has been determined as having an adverse affect on the environment.

**Findings:**

The application meets the minimum regulatory requirements of the R645 Coal Mining Rules.

**RECOMMENDATION:**

This Scope of Work plan to repair the subsidence cracks adjacent to degasification well G-7 should be approved.

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